

**SUMMARY OF THE  
FIELD ACTIVITIES COMMITTEE MEETING  
MAY 23, 2001**

The Field Activities Committee of the National Environmental Laboratory Accreditation Conference NELAC met on Wednesday, May 23, 2001 at 1:00 p.m. Mountain Daylight Time (MDT) as part of the Seventh NELAC Annual Meeting in Salt Lake City, UT. The meeting was led by the committee chair, Dr. Barton Simmons of the California Environmental Protection Agency (Cal/EPA). A list of action items is given in Attachment A. A list of participants is given in Attachment B. *The purpose of the meeting was to discuss the listed agenda items.*

**INTRODUCTION AND REVIEW OF AGENDA ITEMS AND GROUND RULES**

The committee member introduced themselves, stated their affiliations and related qualifications. Dr. Simmons then reviewed the agenda items and the ground rules.

**AGENDA ITEMS**

**General Sampling Standard (NELAC Proposed Chapter 7)**

Dr. Simmons gave a brief overview of the history of the Field Measurements *ad hoc* committee activities. He then gave reasons for justifying the formation of the current Field Activities Committee, and why NELAC should address the field sampling process, which was amended earlier into the NELAC Constitution (Article 1). Dr. Simmons also listed the primary reasons for developing Chapter 7 of the NELAC Standard. These included a general desire for a standard concerning field measurements, desire for better quality sampling, recognition that sampling represents potentially the greatest source of error and also that ISO 17025 has specific language about sampling documentation (NELAC Chapter 7 language is consistent with ISO 17025).

An overview of the Sixth NELAC Interim Meeting (NELAC 6i) was presented to the attending body. The committee discussed the current scope of the proposed NELAC Chapter 7 as being limited to laboratories collecting samples. The committee received comments that non-laboratory organizations are generally responsible for sample collection, therefore the scope of the proposed NELAC Chapter 7 should be more inclusive. Language was added under Section 7.1.8 to standardize data recording/metadata and to be consistent with a recent Federal Register Notice on Water Quality Data Elements.

Dr. Simmons reported that the Environmental Laboratory Advisory Board (ELAB) recommended and the NELAC Board of Directors (BoD) has issued a two year moratorium on development of standards concerning source emissions and activities of the Air Source Emissions Task Team (ASETT). The topic of source emissions will be addressed during the Ninth NELAC Annual Meeting (NELAC 9) in 2003. In the meantime, the industry is represented by the Source Emissions Society (SES) and that group will be actively working to develop a draft standard. Mr. Jim Davies presented a summary of the objectives of the SES

workgroup which includes the formation of a database, development of guidance, and collection of feedback from stakeholders.

The floor was opened to comment and Dr. Simmons asked for suggested changes of language to the proposed NELAC Chapter 7. There were numerous comments ranging from support for the inclusion and further development of sampling guidance in the NELAC Standard to those which questioned the appropriateness of the inclusion of such sampling guidance.

Even though federal sampling guidance exists for some programs (e.g., Superfund) it was stated that when sampling plans/quality assurance plans were prepared they were not always implemented. This standard would mandate quality controls where none currently exist and supplement existing standards. The standard received support as an opportunity to nationally introduce consistency in sampling activities.

There was much concern expressed about the lack of opportunity afforded to all potential stakeholders to review the proposed sampling standard since the scope has been significantly revised to include non-laboratory organizations. It was widely recommended that inclusion of the proposed chapter as a NELAC standard not be voted on before more comments were solicited from these non-laboratory organizations. It was suggested that the proposed sampling standard be submitted for publication in the Federal Register so that all types of organizations that are involved in the collection of samples can review and comment. The value added by the proposed standard was questioned with reference to the potential cost of accreditation of both large and especially small laboratories. Concern was also expressed pertaining to duplicity of accreditation and associated costs for some organizations located in states that already have established sampling standards. The objective of the standard should be to establish guidelines that promote sample collection practices that meet the data quality objectives (DQOs) of projects and not necessarily collection of quality data. Clarification was provided by the committee that the organization collecting the sample was responsible for implementing the elements of the standard. It was suggested that standards should be added for oversight, follow-up, and auditing of field sampling compliance. The committee should reference the ongoing work of the U.S. Environmental Protection Agency's (EPA) Quality and Information Council when considering development of standards for data handling and management.

Revisions were made to the language in the following sections of the proposed NELAC Chapter 7:

#### *7.1.5 Sampling Methods*

The word "preparation" was replaced with the word "preservation." The first sentence now reads:

The field sampling organization shall use appropriate methods and procedures for all tests within its scope, including sampling, equipment decontamination, handling, transport, chain-of-custody, storage, and preservation of samples to be tested.

#### *7.1.6 Equipment*

In the first sentence of paragraph (a) the word tests was replaced with the term “sampling activity.” The paragraph (a) now reads:

The samplers shall be furnished with all items of sampling equipment required for the correct performance of the sampling activity. In those cases where the field sampling organization needs to use equipment outside its permanent control, it shall ensure that the requirements of this standard are met.

#### *7.1.7 Sampling Procedures*

Within the fourth sentence of paragraph (a) the word “reasonable” was replaced with the word “appropriate.” Later in the same sentence the next usage of the word “appropriate” was changed to “applicable.” Paragraph (a) now reads:

The field sampling organization shall have a sampling plan and procedures for sampling when it carries out sampling for subsequent testing. Sampling procedures describe the selection, sampling plan, withdrawal and preparation of samples from a matrix to yield the desired information and the use of field blanks and other quality control samples. The sampling plan as well as the sampling procedure shall be available at the location where sampling is undertaken. Sampling plans shall be based on communication with the client and, whenever appropriate, be based on applicable statistical methods. The sampling process shall address the factors to be controlled to ensure the validity of the tests.

#### *7.1.8 Sample Reports*

The section heading was changed from “Sample Reports” to “Sampling Documentation.” The first paragraph was changed to read, “Sampling events shall be documented and shall include the following items as appropriate for the interpretation of test results. When necessary, this information shall be provided to the data user.”

#### 7.1.8 (c)

The word “unambiguous” was deleted and the sentence now reads, “sample type, including an identification of the matrix sampled.”

#### 7.1.8 (h)

Item (h) was deleted from the text. Subsequent items were renumbered accordingly.

#### 7.1.8 (l)

The word “environmental” was deleted from item (k) [previously item (l)] that now reads, “details of any environmental conditions during sampling that may affect the interpretation of the test results.”

### **Media Specific Sampling**

Dr. Simmons opened the discussion by asking attendees to share information about existing standards and the originating organizations. Discussion of standards for field measurements were also included. Several media types were identified that included drinking water, ground water, surface water, and air. A rule amendment by Florida is expected that will include NELAC Chapter 7 in their accreditation scheme if the proposed NELAC Chapter 7 is approved.

It was noted that the standard should address issues associated with continuous sampling methods (e.g., NPDES monitoring). Types of samples were also mentioned that included drum sampling and other composites.

It was suggested that the standard should focus on basic field analyses including pH/Eh, temperature, conductivity, and dissolved oxygen and that more sophisticated field measurements (e.g., immunoassays, GC and GCMS analyses, and XRF) not be addressed by NELAC Chapter 7. Results of basic parameter measurement was thought by several attendees to be generally unreliable due to inconsistencies in methodology. Basic chemistry is done routinely by less trained technicians and requirements for training should be included in the standard as well as follow-up and monitoring. Language should be included that requires analysts to estimate the uncertainty in the measurement of basic parameters. Originally “automatic parameter measurements” were not to be included in the proposed chapter but there was a general consensus opposing this decision. Standards are also needed for continuous parameter monitoring. It was also noted that few field tests are typically performed on soil or air samples and that specific standards may not be needed for all media types. Since existing analytical methods include guidelines for both sample collection and parameter measurement it was suggested that the standards included in NELAC Chapter 7 should simply reference these methods.

## Mobile Laboratory Issue

Mr. Peter Law summarized a joint committee conference call with the Accreditation Process Committee to discuss suggested language changes from the Field Activities Committee for input into Chapter 4 of the NELAC Standard. There were no changes to the proposed chapter suggested. The workgroup discussed the definition of a *laboratory* in reference to defining a *mobile laboratory* which is currently not included in Appendix A (Glossary) of the NELAC Standard; field measurements versus a laboratory measurement; and fairness of the process in that accreditation of an organization should also be applied to associated mobile laboratories within that organization. They also discussed primary authority issues for mobile laboratories that travel between states; quality systems/environmental effects to accreditation of a laboratory system when vehicles are replaced.

The discussion that followed primarily pertained to the need for delineation between accreditation of facilities versus the accreditation of quality systems. In the interim the committee agreed on the need to draft a more universally acceptable definition of both a *field measurement* and *mobile laboratory*. Several attendees including representatives from the U. S. Department of the Navy and the U. S. Geological Survey (that uses mobile laboratories in every state and territory) stated support for accreditation of quality systems requiring internal quality monitoring with periodic (e.g., 2-year cycle) re-application for accreditation. Dr. Simmons and the attending chair of the Accreditation Process Committee (Mr. Gleason Wheatley) agreed to continue to coordinate efforts to resolve this issue.

## ADJOURNMENT

After reviewing the action items, Dr. Simmons thanked everyone for attending and adjourned the meeting.

**ACTION ITEMS  
FIELD ACTIVITIES COMMITTEE MEETING  
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<b>Item No.</b>	<b>Action</b>	<b>Date to be Completed</b>
1.	Verbal agreement was made to incorporate changes to the proposed NELAC Section 7.1 which were discussed during the session.	5/25/01
2.	Proposed Federal Register Notice	11/2001
3.	Compile suggestions to be discussed at the Seventh NELAC Interim Meeting concerning water field measurements and other media issues.	12/2001
4.	Finalize definitions for distinction between <i>field measurements</i> and <i>mobile laboratories</i> in coordination with the Accreditation Process Committee.	11/2001
5.	Petition the BoD to resume standards development for source emissions (end of 2-year moratorium)	2003

**PARTICIPANTS**  
**FIELD ACTIVITIES COMMITTEE MEETING**  
**MAY 23, 2001**

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